

[DRAFT OF REPLY BY THOMAS SAY.]

October 12th, 1825.

I thank you much for the specimens of ins. you were so good as to send me, as well as for the agreeable letter which accompanied them; in the care of Mr. Robinson they all arrived in excellent order.

The *Pollyxenus* you met w. is ["perhaps" erased] the *P. fasciculatus* Nob. if so the species has a wide range.

Pieris, I have not met w. this sp. before & do not know it, have you both sexes?

Limenitis arthemis, Drury, the Butterfly w. a broad white band across ea. wing.

Lycaena phlœas, var.

Cicindela formosa. I am surprised to learn that this is f'd in y'r region; I've never met w. it here. I think you will find the green *Cicindela* to be a variety of *C. 6-guttata*, I have some

specimens on which the punctures are very large so as to give the surface a very rough appearance.

The *Craspedosoma* must be interesting, I have not yet found a sp'n in this country.

The black *Leptura* is my *L. pubera*.

"The *Tipula* found in ditches &c" is *Ptychoptera clavipes* of authors.

The brown butterfly is my *Hipparchia semidea*. I received a mutilated specimen from Mr. Nuttall, but yours is in good order. I propose to figure it in my 3rd or 4th vol. (the marbling of the under sides of hind wing is much as in *H. semele*, but the dark lines are broader.)

The *Leucospis* is a small sp'n of my *L. affinis*.

The Prince of Musignano will deliver you this letter if he goes so far as Salem, if not he will put it in the Boston post office.

Melandrya labiata Nob.

DESCRIPTIONS OF OESTRID LARVAE TAKEN FROM THE JACK RABBIT AND COTTON-TAIL.

BY C. H. TYLER TOWNSEND, LAS CRUCES, N. MEX.

Our jack-rabbits and cotton-tails are frequently badly infested with bots, but the former are usually the worse infested. The jack-rabbit of this region is the *Lepus callotis* of Wagler; while, if I am not mistaken, our cotton-tail is the sage hare, *Lepus artemisia* of Bachman (or possibly *L. bachmani* Waterh.)

Jack-rabbits are sometimes seen with immense, unshapely lumps on their shoulders, sides or backs. Whether or not these are due to bots, I can not

say positively, as I never succeeded in securing a rabbit in this condition. I have been told that when these lumps are cut open, they reveal simply a collection of sacs filled with a watery substance, but without bots.

It may seem strange to record that the jack-rabbit bot is a *Dermatobia*, while the bot of the cotton-tail is, as a rule a *Cuterebra*. Such, however, is the case. While I have not observed any instance as yet of the *Cuterebra* in-

festing the jack-rabbit, I have on several occasions taken small *Dermatobia* larvae from cotton-tails.

On October 10, 1891, nine cotton-tails were shot at Joblin's ranch, in the San Andres Mts. Seven bots were taken from beneath the skins of these. Two, and even three, were found in the same cyst or "warble." Each cyst communicated with the outside by an orifice through the skin. The bots were found on the back, belly and shoulders. They are more shortened in form than those taken from the jack-rabbit, and become of a brown instead of a gray tinge after immersion for some time in alcohol. The following is a description of them :

Larva of Cuterebra sp. from Lepus artemisia (?)—Elongate oval, thick, broader behind than in front, dorsal surface convex in profile, ventral rather concave; first and eleventh segments appearing nearly equal in width when the latter is extruded, but the eleventh appears smaller when sunken; segments gradually increasing in width from first to seventh, the seventh segment widest, remaining segments decreasing in width posteriorly; tenth segment telescopic, sometimes protruded when the eleventh becomes more clearly outlined. All the segments, except the first and eleventh, densely and equally covered, both above and below, with short horny spurs, not spiny, the first segment less bare than the eleventh. One pair of small, straight, approximated black jaws; antennae rather removed basally, approximated distally meeting the jaws, each antenna with two small ocellus-like dots on upper surface; in one specimen the antennae are horny and black so that the dots do not show; jaws and antennae sunk in a crescent-like or semicircular transverse cavity in the first or

cephalic segment, the first segment with a median notch in its upper anterior margin. Anterior (or superior) stigmatal plate of last segment sub-circular, more or less completely bifid longitudinally, situated in an a-crescentic transverse furrow or cavity, the furrow appearing long crescentic when the tenth segment is extruded, but short and hardly crescentic when not extruded; posterior (or inferior) plate situated in an elongate transverse pit, the margin of the segment below pit bearing a median notch and a slight lateral one on each side. Length, 18 to 20 mm.; width of 7th segment, 9 to 9.75 mm. Described from two specimens collected Oct. 10, San Andres Mts., New Mexico.

On October 10, a jack-rabbit was shot near Joblin's ranch, San Andres Mts., from beneath the skin of which six bots were taken, mostly on the back and about the root of the tail. They are rather elongate, and whitish. Each one lay in its cyst or "warble" The following is a description of them :

Larva of Dermatobia sp. from Lepus callotis.—Elongate conical anteriorly, tapering posteriorly, not stout and thick, broader in front than behind, dorsal surface convex in profile, ventral concave; first segment small, much smaller than eleventh; segments gradually increasing in width from first to sixth, the sixth segment widest, remaining segments decreasing in width posteriorly; eleventh strongly extruded, joining the tenth by a constricted neck, more or less spherical, rather truncate posteriorly. Segments after the first sparsely covered with short black curved spines, showing most plainly recurvate on last segment, which is nearly or quite bare on posterior surface. One pair of very small, rather removed, straight black jaws, situated in a crescentic transverse slit; antennae approximated, ocellus-like dots not visible, a pit in the first segment above and behind the antennae. Stigmatal plates

on last segment consisting of four horny, reddish-brown, more or less curved, transversely corrugated ridges on each side, a small pit just above and between them; a swelling or prominence below them which is bounded inferiorly by a crescentic transverse furrow. the margin of the segment below furrow being more or less strongly notched. Length, 19 to 22 mm.; width of 6th segment, 5 to 6.5 mm. Described from five specimens perhaps not fully grown. collected Oct. 10. San Andres Mts., New Mexico.

DOHRN AND BURMEISTER.

Two Nestors of entomology have recently passed away within two days of each other, born in the first and dying in the last decade of the century. Dr. C. A. Dohrn was born in 1806 and Dr. Hermann Burmeister in 1807; the former died May 4, the latter May 2 last. Dohrn was especially known as a coleopterist and as the head and front of the Entomological society of Stettin, Germany. Burmeister occupied many fields, not only in entomology, but in general zoology, in geology and especially in paleontology during the past 30 years, since his appointment to the directorship of the National museum of Buenos Aires. He was buried at the cost of the state and the President of the republic was present at his funeral. Dr. Carlos Berg another entomologist of distinction, long his assistant, succeeds him as director of the museum.

PROCEEDINGS OF SOCIETIES.

CAMBRIDGE ENTOMOLOGICAL CLUB.

13 May, 1892. — The 171st meeting was held at 156 Brattle St. Mr. S. H. Scudder was chosen chairman and Mr. A. P. Morse secretary pro tempore.

Mr. A. B. Mayer was elected to active membership.

Mr. S. H. Scudder called attention to a short discussion by Emery in the February Bulletin of the Société Vaudoise (v. 27, p. 258) on the origin of the ant fauna of Europe,

This bot must occasionally continue all winter in the animals, as small ones. apparently this species, were taken from cotton-tails shot Oct 24 and 29.

On Oct. 14, a jack-rabbit was shot which had a small sac beneath the skin, apparently containing young bots. Closer examination revealed only *remains* of small bots, which had died from some cause.

a result of his studies of the ants found in Sicilian amber as compared with those of the amber of Samland and the existing fauna of Europe. The existing fauna he divides into three groups, a boreal, an Indian (those having Indo-Australian and South African affinities), and a cosmopolitan, and remarks regarding the first two that in passing from the north southward or from the present time to the amber epoch, the boreal group diminishes and the Indian group increases in importance; the former is absent from the Sicilian amber and the latter in the existing Scandinavian fauna. He is of the opinion that an Indian fauna inhabited Europe in eocene time and that a new fauna, derived from the polar regions, advanced upon it, but was checked in its southward march by the sea which then crossed middle Europe, so that it never reached so far as Sicily although it left its impress on the fauna of the Baltic amber.

Mr. Morse exhibited a specimen of that rarity, the male of *Pelecinus polycerator*, taken by him at Provincetown, Mass., in September. He also showed two males of *Colias interior* collected at the summit of Kearsarge Mountain, near North Conway, N. H., July 2, 1891, and several specimens of *Colias philodice* showing variations in the discal spot on the upper surface of the fore wings; these, in one male, were almost entirely absent, and, in a white female, very large and triangular with the apex and longest sides directed outward.